BRITISH HONDURAS

REPORT OF THE

DEPARTMENT OF AGRICULTURE

FOR THE YEAR

1939

IMPERIAL MYCOLOGICAL
28 JAN 1941
INSTITUTE

Printed by the Government Printer.

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SECTION I.

GENERAL REVIEW OF CROPS INCLUDING EXPORTS.

WEATHER CONDITIONS.

1 In 1939 the Colony again experienced a dry year. The commencement of the rains occurred a month later than is normally expected. The January rains were fairly normal. The dry season commenced in February and did not end until the beginning of June. In the Northern District the rains were light throughout the year and the total precipitation for 1939 was much below average. In Toledo District exceptionally heavy rains in August made up in quantity for the earlier deficiencies and the total fall for the year was average. Irregular rains in November and December have probably caused a reduction in the yield of autumn pulse and corn crops. In most places the year was favourable to crop production, but in Cayo District a shortage of maize was caused by insufficient rains.

GENERAL SITUATION.

2 A further fall occurred in the output of bananas mainly on account of the ravages of the Cercospora Leaf Spot Disease and on account of the rapid falling off in the yield of the plantations on unsuitable land. The continued drop in the price for coconuts and copra further depressed the export trade in this commodity. The general prospects of the coconut growers have been improved by the establishment of several soap factories at Belize. Earlier in the year the outlook for citrus was good, for the largest crop on record was expected and the British Honduras Citrus Association had chartered boats in order to establish direct shipments to the United Kingdom. The Corozal Sugar Factory had a most satisfactory grinding season and continued their previous improvement in the efficiency of their extraction. The Empire Starch Products Factory had its first output of starch. The production of the Colony's foodstuffs continues to increase and the output of rice has approximately trebled.

3 The outbreak of war was a serious blow to the citrus industry as it completely dislocated their shipping arrangements. The effects of the war have already stimulated the demand for coconut and cassava products. A marked increase in the interest in agriculture has been displayed. Efforts have been made in all districts to produce more food crops, such as, pulses, ground provisions of all kinds, vegetables and rice.

CONDITION OF THE CHIEF AGRICULTURAL CROPS.

4 *Bananas.* The set-back which this crop has received during the last two years has reduced new plantings to a minimum and has caused many persons to give up bananas and to try alternative crops. The increasing damage caused by the Sigatoka Leaf Spot Disease (*Cercospora musae*) and by two successive dry seasons, particularly on unsuitable soils, has caused a large proportion of the fruit presented for shipment to be rejected. A scheme on an experimental scale to give assistance to growers in order to combat this disease by methods of spraying was not taken up enthusiastically partly on account of the very poor returns being obtained for bananas. A few of the larger growers on the better types of soil have commenced to spray. The number of bunches exported during 1939 continued to drop. The reduction in exports from the Toledo District was 24% of the 1938 output in quantity and 40% in value. The decrease in export from the Stann Creek Valley was still greater the output being less than 50% of that of 1938. For the export of bananas for the years 1935 to 1939 see Table No. 1. Throughout the year the purchases by the United Fruit Co. have been decreasing and in October the Company transferred its interest in the banana trade of the Colony to the West India Fruit and Steamship Corporation.

5 *Coconuts and Copra.* The decline in the trade of this crop continued until the outbreak of war when prices rose and trade was considerably stimulated. In the Northern District growers are taking a renewed interest in this crop and groves, which had been allowed to become badly neglected, are being cleaned. The exports of coconuts, which are the lowest for some years, are shown in Table No. 2. The export of copra shows a steady increase. The establishment of several soap factories in Belize has produced a local demand for copra and should stimulate the production of this product as well as producing a valuable by-product for the use of owners of livestock.

6 *Citrus.* The area under citrus has not materially increased during the year. Very little new planting has taken place and some plots have been abandoned. The acreages under citrus for the two main areas, Stann Creek Valley and Corozal, are as follows:

Stann Creek.

	Acreage in bearing:	Non-bearing:	Total
Grapefruit			
Marsh Seedless	600	225	825
Duncan	170	10	180
Others	10	2	12
Total Grapefruit			1,017
Oranges	25	5	30
Other Citrus	25	5	30
Total Citrus			1,077

Corozal.

	Acreage in bearing:	Non-bearing:	Total
Grapefruit	112	45	157
Oranges	75	22	97
Other Citrus	5	6	11
Total Citrus			265

7 The British Honduras Citrus Association handles its shipments in four pools commencing with the new crop, which is expected in July. The shipments for the 1938/39 season were as follows:

Pool	Period	Number of cases shipped	Return per case to the grower
1	July to September	27,050	89c
2	October to December	21,353	22c
3	January to March	10,018	1c
4	April to June	7,372	11c

The average return to the grower after deducting all packing charges, 87.9c per case, was 28c per case.

8 Owing to a pronounced dry season flowering was generally profuse and there was every sign that a great increase in production would take place. The Association considered that this would be more than the existing shipping facilities could deal with, and arrangements were, therefore, made to ship the fruit direct to the United Kingdom instead of, as in previous years, via Jamaica. Ships were chartered to deal with the estimated output for pools Nos. 1 and 2 of the 1939/40 season of 80,000 cases. Owing to the outbreak of war and the consequent cancelling of the shipping arrangements only 41,662 cases were actually shipped. The Marsh Seedless grapefruit is the only variety, on which reliance can be placed to give a return to the grower. The market for seeded grapefruit still continues to be depressed. The export of oranges and other kinds of citrus has not paid for the packing.

9 *Cassava.* This crop is grown mainly by the Caribs as a food supply and is converted by the Carib women into starch and meal for the preparation of cassava bread, a staple form of diet. The Empire Starch Products Factory was established in Stann Creek Valley in order to exploit the surplus cassava and to export it as starch for the glue and mucilage trade. Owing to numerous unavoidable delays the factory only commenced operations during the latter part of the year, and, in direct consequence of the delay only the small output of 75 tons of starch was obtained. The yields of roots from all properties harvested were disappointingly low, partly as a result of ignorance in the methods of production and also due to the fact that the factory was not ready to receive the roots when they had matured, and, therefore, heavy losses due to rotting occurred. The position is unsatisfactory and will remain so as long as reliance is placed upon the production of roots by settlers and planters. Cassava in this country is probably most suitably grown as a peasant crop and success will therefore depend upon a sufficient number of peasant farmers having a surplus over their food requirements.

10 *Sugar Cane.* During the Sugar Cane crop season, from February to May, the Corozal Sugar Factory ground 12,042 tons of cane and produced 1,360 tons of sugar. This is an average production of 1 ton of sugar from 8.63 tons of cane. This excellent return was obtained by the improvement to the machinery carried out in the previous

year as well as the early ripening, due to the dry weather, of the cane supplied. Some of the smaller ranchos both in the Corozal area and in the Toledo District run small mills for the production of brown sugar. But the greatest incentive in keeping these mills working is the production of molasses for the manufacture of rum. There was little improvement in tonnage of cane to the acre. The expected increases from the use of improved varieties were offset by the extremely dry conditions prevailing in the Northern District. There has been a definite improvement in the methods of cultivation which will prove of value in the crops to come.

11 *Rice.* A greatly increased output of padi has taken place during the year. This is probably due to three reasons. Growers are now beginning to realize that Government is fulfilling its offer of a guaranteed minimum price. The decline of the banana industry is causing growers, particularly the small man with a few acres, to search for alternative crops. The season was generally very favourable for rice production. The output of rice padi for 1939 has not yet reached the recent peak of the year 1934 as the following table shows:

Year	Production of Padi in lb. as gauged by Purchases
1930	12,104
1931	20,430
1932	29,684
1933	176,846
1934	296,238
1935	162,574
1936	61,374
1937	38,794
1938	79,710
1939	221,468

The greatest increase has occurred during the last three years in the Toledo District, where rice is grown under high rainfall conditions and in swamp land. Five rice land reserves have been established in order to enable intending growers to occupy land by permit and on a royalty basis, in which the grower pays to Government 50 lb. dry clean padi or its equivalent in cash in respect of every 1,000 lb. of rice padi produced.

In this Colony padi growing will probably always remain a peasant crop. Small areas of suitable land are scattered over much of the southern portion of the Colony. The growing of paid should develop primarily for providing food for the family and secondly the surplus can be disposed of to the Government rice mills.

12 *Maize.* It is estimated that the production of maize in 1939 was as great as that of 1938. In the central and southern portions of the Colony excellent crops were obtained. Irregular and deficient rains checked the crop in parts of the Northern District. The position in Cayo District is more serious as there was a partial failure. In general the Colony is well supplied with this commodity and no general shortage is estimated during 1940.

13 *Ground Provisions and Pulse Crops.* Since the outbreak of war, great interest has been shown in the production of red kidney beans, black eye peas and ground provisions. In the northern half of the Colony the irregular rains have caused some disappointment in the production of red kidney beans. Black beans, which are mainly consumed by the Spanish and Indian elements, are also grown, but the imported red kidney bean has displaced the black bean in the urban markets.

14 *Vegetables.* The 1938-39 vegetable season, owing to the unfavourable weather conditions, was a poor one. The main areas of production are in the vicinity of Corozal and along the river banks near Belize. In the former area the Corozal Producers' Association was formed to control the marketing of its produce in Belize, but in 1939 many small producers attempted to market separately and only supplied the Association with their surplus produce and thus marketing became disorganised. The marketing for the 1939-40 season is better organised and a Belize firm is working up a retail trade in vegetables.

There is no cooperation between the Belize vegetable producers who rely mainly upon stallholders in the Belize Market to dispose of their produce. There is a tendency to concentrate on one or two types only and to produce them at the easiest time of the year. This is unsatisfactory as it tends to cause periodic gluts in the market and then subsequent loss to the grower.

LIVESTOCK.

15 The largest concentration of livestock occurs in the Cayo District, where cattle and mules were originally bred for hauling mahogany logs and for the chicle trade. The mechanization of the former and the poor season of the latter has given little encouragement to livestock owners. Two or three owners periodically send livestock on the hoof or by boat to Belize for slaughter. In the Northern District cattle are kept on the larger ranchos for hauling cane and for slaughter.

16 Very little is at present done in the way of milk production owing to the difficulty of ensuring rapid transport from the areas of production to the consumers in the towns. A few farmers have been attempting to develop a retail trade in fresh milk in the towns. The difficulties of popularizing fresh milk are great as the people generally prefer to continue consuming what they have long become used to.

Practically no attention is paid to pasturage and in most cases no additional rations are fed to cattle with the result that considerable losses occur every dry season in the drier parts of the Colony due to lack of green fodder. The use of animals for cultivation is still practically unknown although interest is slowly being roused.

17 Pigs are probably the most popular kind of livestock, as they are reasonably cheap and are easy to feed and have a ready sale particularly as lard. They are probably the most suitable form of livestock for the peasant and the small-holder. The keeping of goats is not very popular probably owing to their being so destructive to crops and to the general disinclination of their owners to tether them. Sheep hardly exist as the demand for mutton is far from general owing to the local superstition against eating the meat.

The production of poultry and eggs is irregular and does not always meet local requirements, and at other times the market may become glutted with eggs. A more steady output and a lowering in the price asked for eggs would ensure an increased demand.

PESTS AND DISEASES.

18 *Bananas.* The Sigatoka Leaf-Spot Disease (*Cercospora musae*) was prevalent on bananas throughout the Colony in all banana growing areas, and has been one of the main causes of the recent decline in the output of the fruit. Adequate control measures for this disease mean frequent spraying, a costly operation, which most of the plantations cannot bear. General spraying measures are rendered almost impossible owing to the small scattered nature of the banana farms, to lack of cultivation and to general transport difficulties. A few of the larger growers have commenced spraying using small mule-drawn power sprayers developing a pressure of from 250 to 300 lb. per sq. inch.

19 *Wee-wee Ants.* These ants are an ever present source of damage to crops, particularly 'truck crops'. The nests are very frequent and their destruction is expensive and laborious. Most growers find the continual destruction very burdensome and this tends to produce a hopeless attitude to any attempts at control.

20 *Animal Diseases.* An obscure illness which caused a rapid decline, semi-paralysis, and death of apparently healthy cattle occurred during the dry season on a large rancho. There appeared to be some correlation with pasturage on a low area which becomes flooded during the rains. The disease, which was never definitely diagnosed, has since cleared up.

21 *Statistics of Agricultural Production.* Present statistics of the agricultural products of the Colony are very inadequate. Table No. 4 gives the amount and value of the agricultural exports for the year 1939. The transactions of the Board of Agriculture form the only other guide and only give an indication of the relative amounts of foodstuffs produced. The imports of the Colony for 1939 in respect of foodstuffs (see Table No. 5) shows the relative position of the Colony in respect of the foodstuffs which could be produced locally. They together show the avenues along which future progress should travel.

TABLE No. 1.

COMPARATIVE STATEMENT OF BANANA SHIPMENTS BY AREAS.

BUNCHES.

AREA	1935		1936		1937		1938		1939		West India Fruit & Steamship Corporation
	U.F.Co.	Sch.	U.F.Co.	Sch.	U.F.Co.	Sch.	U.F.Co.	Sch.	U.F.Co.	Sch.	
Belize	37,152	—	134,062	—	235,182	—	174,855	—	27,137	275,109	5,651
Stann Creek ..	108,961	—	134,144	—	143,767	—	83,204	—	20,369	24,738	
Mullins River ..	5,127	28,556	8,774	143,923	10,327	—	4,663	—	1,619	—	2,128
Commerce Bight ..	3,927	—	11,093	—	13,025	—	8,330	—	5,320	—	
Sittee River ..	12,333	—	16,597	—	20,757	—	17,310	—	6,355	—	—
Monkey River ..	70,183	—	61,928	—	96,226	—	62,628	—	14,367	52,797	2,731
Punta Gorda ..	56,323	33,494 —	104,622	80,984 —	223,639	—	153,175	—	23,559	— 58,267	1,690
TOTAL ..	294,006	62,050	471,220	224,907	742,923	196,062	504,165	272,007	98,726	410,911	12,200
Combined Tota	356,056	—	696,127	—	938,985	—	776,172	—	—	521,837	
Other Shipments not shown by areas	—	—	—	—	—	—	—	—	—	741	
Grand Total ..	356,056	—	696,127	—	938,985	—	776,172	—	—	522,578	
VALUE $ ..	125,274	—	244,238	—	330,491	—	282,890	—	—	186,702	

TABLE No. 2.

EXPORTS OF COCONUTS AND COPRA.

COCONUTS.

	1935	1936	1937	1938	1939
Number	6,589,320	4,310,110	4,958,980	4,779,290	2,846,550
Value	$96,515	$63,930	$77,267	$49,803	$35,071
Approximate average Value per 1,000 ..	$14.64	$14.83	$15.58	$10.42	$12.32

COPRA.

	1935	1936	1937	1938	1939
Pounds	5,230	425,996	356,708	363,936	999,419
Value	$52	$10,456	$10,975	$8,048	$18,955
Approximate average Value per 100 lb.	$0.99	$2.45	$3.01	$2.21	$1.90

TABLE No. 3.

EXPORTS OF CITRUS FRUITS AND CANNED AND JUICED FRUIT.

ARTICLE	1935		1936		1937		1938		1939	
	Quantity Cwt:	Value $	Quantity cwt.	Value $	Quantity cwt.	Value $	Quantity cwt.	Value $	Quantity cwt.	Value $
Grapefruit ..	15,450	32,280	18,781	41,177	14,852	31,430	36,327	84,447	44,146	82,625
Oranges	1,595	1,720	291	527	324	587	264	438	523¾	1,612
							No.270,800	846		
Tangerines	117	219	181½	326	170	315	No.1,850	9	No. 1,300	5
Other Citrus Fruits	—	—	—	—	—	—	23	49	19	30
							No. 2,400	11	No. 200	1
Grapefruit Canned ..	lb. 39,104	1,999	lb. 158,531	8,381	lb. 90,090	4,663	lb. 140,160	4,960	—	—
Grapefruit Juice ..	lb. 4,706	156	lb. 68,494	2,703	lb. 2,997	140	lb. 95,344	3,770	—	—
TOTAL VALUE	—	$36,374		$53,114		$37,135		$94,530		$84,273

TABLE NO. 4.

AGRICULTURAL PRODUCE: EXPORTS 1939.

PRODUCE	Destination	Quantity	Value $	% by value of all Agric. Products	% by value of all Products 1939
Coconuts (Nos.) ..	U.S.A.	2,817,800	34,839		
	Mexico	7,500	40		
	Cayman Is.	20,250	184		
	U.K.	1,000	8		
	Total	2,846,550	35,071	10.3	2.54
Copra (lb.)	Mexico	601,670	10,235		
	Panama	394,749	8,720		
	Total	996,419	18,955	5.56	1.38
Bananas (bunches) ..	U.S.A.	522,563	186,695		
	Cayman Is.	15	7		
	Total	522,578	186,702	54.81	13.84
Plantains (Nos.) ..	U.S.A.	15,000	125		
	Cayman Is.	6,000	53		
	Mexico	2,700	13		
	Total	23,700	191	.06	.01
Rum (Gallons)	—	—	—	—	—
Grapefruit (Fresh) (Cwt.)	U.K.	36,371	68,452		
	Canada	7,406	13,561		
	Bermuda	218	409		
	Cayman Is.	37	40		
	Mexico	114	163		
	Total	44,146	82,625	24.25	5.99
Oranges (Cwt.)	U.K.	—	—		
	Canada	42	169		
	Bermuda	20	37		
	Cayman Is.	8	57		
	Mexico	452	1,337		
	Honduras	1¾	12		
	Total	523¾	1,612	.47	.12
Tangerines (Nos.) ..	U.K.	—	—		
	Mexico	1,300	5		
	Total	1,300	5	—	—
Lemons (Cwt.)	U.K.	16	29		
	Mexico	3	1		
	Total	19	30	.01	—
Limes (Nos.)	Mexico	200	1	—	—
Other Agricultural Products:					
Arrowroot, Macaroni & Sago (lb.) ..		126,180	3,074	.90	.22
Sugar (tons)		136	10,100	2.97	.73
Leather (lb.)		6,010	1,103	.33	.08
Poultry (No.) ..		1,317	479	.14	.04
Eggs (doz.)		1,472	385	.11	.03
Avocados (No.) ..		16,750	134	.04	
Plants (lb.)		75	100	.03	
Tomatoes			33		.02
Swine (No.)		2	35	.02	
Honey (gals.)		15	15		
Total Agricultural Product			340,650	100.00	24.70

Total Agricultural Produce	$340,650	24.70%
Total Forest Produce	1,032,485	74.87%
Total Marine Produce	5,938	43%
	1,379,073	100–%

TABLE No. 5.

IMPORTS OF FOODSTUFFS, 1939.

COMMODITY	QUANTITY	VALUE
Cattle (No.)	812	$ 16,180
Butter (Cwt.)	703	22,524
Butter Substitutes (Cwt.)	2,624	26,993
Cheese (Cwt.)	1,194	24,623
Rice (Cwt.)	30,511	70,872
Flour, Wheaten (bags of 196 lb.)	42,296	143,159
Beans & Peas (Cwt.)	9,119	43,302
Farinaceous Preparations (Cwt.)	1,082	11,388
Lard & Substitutes (Cwt.)	6,313	57,529
Beef in barrels (Cwt.)	1,495	15,145
Pork, various, (in barrels)	2,985	35,148
Milk, Condensed & Unsweetened (Cwt.)	18,448	149,842
Onions (Cwt.)	3,198	8,568
Irish Potatoes (Cwt.)	3,636	7,656
TOTAL		$632,929

SPECIAL FEATURES.

22 *The Board of Agriculture.* The Board of Agriculture which was established under the Board of Agriculture Ordinance 1936 (No. 14 of 1936) continued to hold quarterly meetings until August, when it was decided, owing to the political situation, to hold meetings each month. The Board operated under great difficulty owing to its having offered uneconomically high prices for produce in 1938, a year of plenty. In addition to a greatly increased turnover in the produce handled, there was an acute shortage of storage accommodation, which has, however, been made good.

23 The policy of the Board was reviewed during the year and reaffirmed to be the offering of a guaranteed minimum price for such products as corn (maize), padi, red kidney beans, black eye peas, black beans, etc. In respect of corn and black beans the Board has announced its intention to limit the purchase of these products to within the amounts sold in 1938. The institution under the Defence Regulations of a system of importing certain articles under licence has considerably helped the Board in the disposal of its produce. The following table shows the turnover in produce handled by the Board of Agriculture during 1939. The details of the rice milling and kiln drying operations are found in paragraphs Nos. 48-54.

TABLE No. 6.

BOARD OF AGRICULTURE

STATEMENT SHOWING PRODUCE BOUGHT AND SOLD FOR YEAR 1939.

PRODUCE	Rice Padi lb.	Rice lb.	Quarter Grains lb.	Bran lb.	Corn lb.	R. K. Beans lb.	Black Beans lb.	Black Eye Peas lb.	Corn Meal, etc. lb.
On hand 1.1.39 :	81,871	2,405	—	—	528,555	—	3,437	—	—
Purchased 1939 :	221,468	—	—	—	484,659	5,275	34,612	151	—
Milled 1939 :	65,881	37,978	2,983	9,913	—	—	—	—	567
Sales 1939 :	10,624	40,383	2,049	9,855	345,118	5,109	17,825	102	301
Losses on drying :	2,694	—	—	—	36,376	131	491	—	—
Losses on storage :	10,120	—	60	58	42,523	35	1,414	—	—
Total losses :	12,814	—	60	58	78,889	166	1,905	—	—
On hand 31.12.39 :	214,020	—	874	—	589,197	—	18,319	49	266
Total produce handled during the year	303,339	40,383	2,983	9,913	1,013,214	5,275	38,049	151	567

SECTION II.

WORK OF THE DEPARTMENT OF AGRICULTURE.

SUMMARY OF AGRICULTURAL POLICY.

24 *Policy.* The Agricultural Policy of the Government of British Honduras may be summarised as follows:

A. To ensure an adequate provision of locally produced foodstuffs in order that the agricultural populace may, not only feed itself, but with its surplus production replace the present large imports of foodstuffs, such as, rice, beans, pork, meat, milk, and vegetables. The measures to be taken to secure this include:

(1) The improvement of the swamp and upland rices, particularly in Toledo District.

(2) The extension of vegetable crops as a supplementary food supply for improved nutrition, particularly in the Corozal and Belize areas.

(3) The encouragement of improved methods of cane farming.

(4) The teaching of hoe cultivation to replace the present methods which employ the axe, the machete and the planting stick.

(5) Investigations into the establishment of crop rotations.

(6) Investigations into more permanent methods of farming, with a view to establishing a form or forms of mixed farming.

(7) The improvement of small livestock.

(8) The introduction and improvement of seed supplies for the purposes of (1), (2), (3) and (5) above.

B. The encouragement of the indigenous peasantry to adopt better and more permanent methods of farming in order:

(1) To prevent the unnecessary destruction of forests containing timbers of export value.

(2) To preserve the soil from loss by erosion.

C. The settlement of out-of-work families on the land, as an alternative to idleness in the towns. This is to be assisted by the cooperation of the Agricultural Department with the Forest Department in vegetation and soil surveys.

D. The cultivation of cash crops for export purposes. The crops include cassava, citrus, coconuts and bananas.

E. An improvement in the preparation and marketing of produce by the use of rice mills and drying kilns, and by the introduction of cooperative movements and marketing schemes.

F. Cooperation by the Agricultural Department with the Education and Medical Departments in establishing systems of vocational agricultural education and instruction.

G. The inspection of produce for export to ensure the maintenance of the standard required for the success of the export trade, particularly in citrus fruit.

25 *Staff.* Staff arrangements were fairly satisfactory during 1939 as only one officer proceeded abroad on leave and continuity of work was thus maintained. On the outbreak of war two officers of the Forest Department were seconded to the Department of Agriculture for the duration of the war in order to advance the policy of increased food production.

NORTHERN DISTRICT.

26 Mr. J. M. Cave was in charge of the agricultural work in Northern District. The main agricultural station, established at Corozal, has been in operation since 1936. A sub-station was completed during the year at Orange Walk.

27 *Sugar Cane.* At the Corozal Agricultural Station introductions of cane varieties were multiplied and tested for yield and for the percentage total solids in the juice expressed as sugars. A Zeiss hand refractometer is used and gives a reading which is found to bear a close correlation to the true sucrose percentage juice and may be safely used as a relative indication of the juice quality of each variety. The results obtained from the more promising varieties are given below:

Variety	lb. Cane per 30 stools	Mean Refractometer Reading (Mean of 36)
P.O.J. 2883	2,608	22.0
P.O.J. 2725	1,590	20.4
D. 11/28	1,446	20.1
B. 3127	1,220	22.8
Co 290	1,204	19.3
E.K. 28	1,070	20.0
B. 3138	1,065	23.1

28 The excellent results given by P.O.J. 2883 made possible the distribution of cuttings to several cane growers. It is hoped in this way that growers will build up their own planting material of this variety. P.O.J. 2725 has already proved inferior to P.O.J. 2878 which is so popular. Co. 290 is a thin cane with a high fibre content and is difficult to cut and grind. E.K. 28 is very susceptible to Gumming disease.

29 Owing to the lack of information available and the uncertainty among cane growers as to the correct time of planting the varieties they grow extensively, experiments have been laid down on the station making use of the three most cultivated varieties, P.O.J. 2878, D. 625 and Crystallina. Investigations into the rates of maturity as well as yields are being carried out.

30 *Maize.* As this is the main food crop of the Spanish Indian element of the North, field experiments on methods of cultivation and distances of planting have been commenced to find the most suitable operations under local conditions.

31 *Ground Provisions.* Variety trials of sweet potatoes, Irish potatoes, yams and cassava are being continued. The results from small observation plots show that a few of the recently introduced varieties of sweet potatoes are capable of giving considerably heavier yields than the local types. The most promising are Puerto Rico Yellow Yam, Red Nut and Black Rock. The two latter have been obtained from Barbados.

Four of the more promising varieties of cassava, already under trial at Stann Creek are being tested out at Corozal. French No. 3 and Commander appear to be two promising varieties for the Corozal area.

Trials on Irish potatoes are being continued. Two most important considerations must be borne in mind in the cultivation of this crop. For the formation of tubers the potato needs the cold weather of the north, which occurs in the dry season. It also needs sufficient rains in November and December to ensure the establishment of the plants.

32 *Vegetables.* Extensive trials on various kinds of temperate vegetables have been carried out during the past few seasons. There is no reason to doubt that eventually the Corozal area should be able to supply the demand of Belize for vegetables during the period from November to May. Water is one of the limiting factors and suitable rotations are being worked out in order to establish small permanent vegetable gardens in the vicinity of suitable water supplies.

33 *Legumes.* A collection of legumes is being established with a view to determining their various capacities as food for human consumption, as fodder for livestock and as green manure crops.

34 *Fodder Crops.* There is a serious shortage of green fodder from February to May and livestock owners suffer considerable loss nearly every year from semi-starvation of their animals. Plots of grasses including Elephant grass (*Pennisetum purpureum*), Para grass (*Brachiaria mutica*), Guinea grass (*Panicum maximum*), Guatemala grass (*Tripsacum laxum*) and Uba Cane (*Saccharum sinense*) have been established to provide green fodder by regular cutting. Attempts are being made to establish Alfalfa (*Medicago sativa*), Berseem (*Trifolium alexandrinum*), and certain Lespedeza to determine their suitability for this area.

35 *Orange Walk Sub-station.* This is a small agricultural station erected at Orange Walk, New River, for the purposes of investigating food crops and the possibility of establishing tobacco as a cash crop. The buildings, including the foreman's quarters, office, store and cattle shed and drying barn, were erected during the year and approximately eleven acres were brought into cultivation. There remain another ten acres to bring into cultivation in 1940.

STANN CREEK DISTRICT.

36 Mr. R. A. Kitching is in charge of the agricultural work in this District. The agricultural station is situated at mile 11 on the motor road from Stann Creek Town to Middlesex.

37 *Cassava.* During the past five years a considerable number of cassava varieties have been imported. What appeared to be the more promising varieties have been multiplied on a large scale for distribution to growers, who were to supply the local cassava starch factory with roots. The Empire Starch Products Company, owners of the factory, have also been supplied with large quantities of planting material for planting their own lands. Experiments were laid down in 1934 and 1935 on the Agricultural Station, but were discontinued owing to circumstances beyond the control of the Department. Investigations into yields, optimum planting and harvesting times and methods of cultivation are now proceeding.

38 General indications are that a variety of cassava to be suitable for local conditions should mature within fifteen months in order that full advantage may be taken of the dry season, from February to May, in which to plant and harvest. The possibilities of using cassava as a catch crop in citrus groves and as a crop to follow bananas are being investigated.

39 A fund of $20,000 was provided to enable growers to obtain assistance in producing cassava and to ensure that there would be sufficient roots to enable the factory to make a profitable turn-over in the output of starch. A Cassava Loan Fund Committee, the Chairman of which was the the Assistant Agricultural Officer, was set up in 1938 in order to manage the loans. The objects of the loan have unfortunately not been obtained for several reasons, of which the more important are:

(1) The loans were issued on insufficient guarantees of repayment on account of the instalments of the loans being made advances instead of payments for work done.

(2) Inexperience of the planters and their failure to make adequate use of the advice of the Department of Agriculture.

(3) Mismanagement of the funds by the Committee in failing to take every possible precaution against deliberate and wilful defaulting on the part of certain persons who had obtained the loans.

(4) Owing to a faulty or wishful estimate of the probable yields the limit of the loan was fixed much too high at $40 per acre.

40 *Citrus.* Trial shipments of citrus from the Agricultural Station through the British Honduras Citrus Association to test markets showed a profit on the Marsh Seedless grapefruit and a large loss on lemons, oranges and tangerines. The root-stock plots continue to demonstrate the superiority of the sour orange as a root-stock for this valley. The early cropping capacity of Marsh Seedless Grapefruit worked on the local lemon root-stock has been well demonstrated. The disadvantage of this root-stock is that it has a feeble root system, which is insufficient to secure the trees under heavy crops. The citrus manurial and cultural trial is commencing to produce fruit, but it will be some years before definite conclusions as to the respective merits of the treatments can be drawn.

41 *Miscellaneous Fruit and Economic Tree Crops.* Small plots of various economic tree crops are being maintained for observation purposes. Various Musa species are being observed for their resistance and susceptibility towards *Cercospora musae.* Among these species is the plantain, a favourite food of the Carib people of the valley. The plots include coffee, cacao, tung oil, mangoes and avocados.

42 *Livestock.* Work on the breaking in of cattle for cultivation purposes, the training of cattlemen and ploughmen continues. A herd of cross-bred Jerseys from the Industrial School, Pomona, was taken over. A small herd of half-bred Berkshires is maintained for the production of boars for distribution to selected centres for the upgrading of local hogs.

43 *Pasture and Fodder Crops.* Investigations are being commenced into rotational grazing of pastures, the establishment of fodder grasses for cutting and the use of farm bi-products for feeding.

44 *Production of Food Crops.* The possibility of war had focussed attention on the necessity for increased production of food crops. Stann Creek Valley is particularly well situated in this respect. The presence of a starch factory among peasants whose main food crops are cassava and plantains has given the opportunity for cooperation between the Department and the factory owners in investigating the possibility of placing on the local market flour and other dried products of plantains, sweet potatoes and yams, as well as of cassava. In cooperation with the Medical Department the question of the dilution of imported flour with local products is being investigated.

TOLEDO DISTRICT.

45 Mr. D. D. Haynes was in charge of the agricultural work in Toledo District. During his absence on leave from 22nd February to 23rd September, his duties were carried out by the foreman of the Rice Station.

46 *The Rice Station.* This station is devoted mainly to the rice industry, and to investigations into problems arising from rice growing. Field trials on methods of establishing the crop are being continued. New varieties are from time to time imported and their yield capacities are compared by means of trials. The next stage, which is now proceeding, is the establishment of demonstration plots in the rice reserve areas to show the most suitable cultural methods and to familiarize the growers with the best yielding varieties.

47 We have now reached the position, in which we know which are our best yielding varieties and which are the best methods for establishing each variety. The question as to which is the most profitable method of establishing rice is still under investigation. From experience on the Rice Station we know that one can grow rice for several consecutive years on the same land. But we have not so far been able to convince the peasant producer that he can also crop his land with rice for several consecutive years. He has, like his forefathers, been accustomed to dibbling rice on newly felled forest land, and to abandon the clearing after taking off one crop only.

48 *The Rice Mill, Punta Gorda.* This mill has had a promising season. The padi received in 1938 was milled in the early part of 1939. 41,844 lb. padi was milled and 22,749 lb. clean dry rice was produced. This is equivalent to 54.4% by weight. No serious pests were noted among rice during storage. Losses from shrinkage during the storage of padi amounted to 9,867 lb., or 4.09% of the total quantity received.

49 From 100 lb. padi milled the average recovery of rice was as follows:

Clean rice	54.4 lb.
Quarter grains (broken rice)	7.1 lb.
Bran (pericarp)	6.6 lb.
Husk and dirt	31.9 lb.

The moderate rate of recovery is probably due to the fact that no padi is parboiled for milling and that an unnecessarily large amount of immature grain is liable to be received from the growers.

50 The Medical Authorities have recommended that, from the point of view of nutrition, it is undesirable that all the pericarp should be removed during milling. But the fact remains that the populace still prefer white rice and, owing to the difficulty of storing brown rice for any length of time in this climate, until a demand exists for such rice the mill must continue to produce white rice. The bran has also been recommended by the same authorities as a useful and healthy substitute for such breakfast foods as "Bemax". The quarter grains have a small demand as a chicken food.

51 During 1939, 173,058 lb. padi was purchased. Storage accommodation was only just sufficient to deal with this amount.

BELIZE DISTRICT.

52 *The Belize Rice Mills and Drying Kilns.* The mills had a full season and for certain periods labour had to be employed on night shifts at overtime rates. Owing to the limited storage accommodation at the end of 1938, the drying kilns dealt with the greater part of the quantity of corn received in 1938 as well as all of the corn received in 1939. 652,534 lb. corn, 5,399 lb. padi and 41,212 lb. beans were kiln-dried in 1939 and the losses incurred on drying were as follows:

Corn	33,503 lb., or 5.1%
Beans	608 lb., or 1.2%
Padi	307 lb., or 5.6%

53 *Rice Milling, Belize.* 24,037 lb. padi was milled and 15,229 lb. clean dry rice was produced. This is equivalent to 63.4% by weight. From 100 lb. milled the average recovery of rice by these mills was as follows:

Clean rice	63.4 lb.
Quarter grains (broken rice)	1.1 lb.
Bran (including Husk)	34.3 lb.
Waste and dirt	1.2 lb.

The high percentage of bran obtained by these mills as compared with the percentage of bran obtained by the Punta Gorda mills is due to the fact that the Belize mill does the two operations of hulling and milling together as one operation.

54 Storage accommodation was very limited at the end of 1938 and temporary accommodation had to be found in various parts of Belize. Meanwhile the purchases of undried corn continued to accumulate in the mill building and had to be shifted into other storage before kiln-drying. Corn and bean weevils became serious pests and under the existing conditions were difficult to eradicate. There was a loss of 40,956 lb. corn and of 389 lb. beans, directly arising from these facts. Six one-thousand-bushel steel granaries were purchased during the year. The present storage accommodation is filled to capacity.

55 *The Scheme for the Experimental Control of the Sigatoka Disease of Bananas.* Arising out a petition submitted to the Royal West India Commission, a memorandum on the Sigatoka disease of bananas, containing proposals for an experimental attempt to control the disease in British Honduras, was prepared in collaboration with the authors of the petition. The recommendations of the petition were that "Government procure a certain number of medium sized power sprayers and of smaller compressed air sprayers for use in the principal areas. It is suggested these be lent to the planters, ..., on the planters undertaking to keep them in proper working condition, and that Government keep a small stock of working parts for supplying to the planters at cost. It is also suggested that the Government procure stocks of the necessary fungicides and to supply these to the planters at cost".

56 The scheme as finally evolved consisted essentially of the purchase of six small power machines, of six barrel-typed compressed air sprayers and of fungicides sufficient for spraying 600 acres six times in the season. Government was to loan out the machines free and to give free help by means of spraying instructors to those growers who were willing to participate in the scheme by purchasing spray materials, and to supply their own labour, etc., for carrying out the spraying operations.

57 In order to ensure that the opportunities of this scheme should be available to as many growers as possible, six spraying centres were established at widely distributed points:

(i) El Cayo
(ii) Baking Pot and Newtown, Belize River
(iii) Saturday Creek, Belize River
(iv) Mile 23, Belize-Maskall's Road
(v) Mile 33½, Belize-Maskall's Road
(vi) Bomba, Northern River.

At each centre a spraying instructor was posted and was supplied with a machine of each type, with fungicides and with apparatus for washing the fruit. Plots were laid down on selected farms to demonstrate the effects of Perenox versus Bordeaux Mixture, with and without a spreader. The spraying programme aimed at was six sprayings per year at three weekly intervals and it was estimated that going full out 100 acres were the maximum amount which could be treated per centre.

58 The results have been extremely disappointing and at two centres, El Cayo and Bomba, operations had to be closed down as no growers would participate in the scheme. Elsewhere, only Saturday Creek Centre showed any signs of success. Here five growers have participated and between them they farm about 850 acres of bananas. The actual acreage so far sprayed is small. The spraying tackle has been increased by the transference of two machines from El Cayo and Bomba. At Newtown and Baking Pot only one grower has taken any interest and his interest has been very spasmodic according as the number of his fruit shipped rose or fell. Recently a plantation at Warree Head has been included in this centre. At the two centres on the Belize-Maskall's Road only one grower has participated, and he, rather half-heartedly.

59 The plots laid down to demonstrate the effects of spraying appear to be producing results. Where only two applications of spray fluid have been made there is no visible difference (Miles 23 and 33½ Belize-Maskalls' Road). Where three applications have been made (Saturday Creek and Newtown) the sprayed blocks show a visible difference from the unsprayed. No conclusive evidence was obtained to show the superiority of one type of spray mixture over the other. The scheme was closed down at the end of September owing to lack of cooperation from the growers, and the equipment sold off.

AGRICULTURAL EDUCATION.

60 *School Gardens.* The Education Department has cooperated with the Department of Agriculture on the matter of agricultural education and further school gardens in each district have received official recognition. The school gardens are designed as the practical counterpart of nature study lessons and are intended to embrace vegetable and flower-growing and to teach the first principles of tillage, rotation of crops and manuring. School garden competitions have been commenced in most of the districts. During the Christmas vacation a short course of lectures was delivered by the Agricultural Department in Belize to school teachers.

61 *Demonstration Plots and Farms.* The Agricultural Department's method of making contact with as many peasant farmers as possible also includes occular and practical demonstration in the form of:

(a) plots,
(b) small-holdings.

The demonstration plots are of a temporary nature and are designed to give practical information with reference to the culture of specific crops, such as, rice in Toledo District and vegetables in Northern District.

62 The demonstration farms or small-holdings are of about ten acres in area and are of a permanent nature. They have been established in order to demonstrate a system of mixed farming, in which it is possible for a peasant family with the use of two steers and a plough to till up to ten acres of land and to keep this area permanently under crops by the use of the manure obtained from the animals and by the rotation of suitable crops. The exact details of the cropping system vary with local conditions. The establishment of these holdings is of comparatively recent introduction. At present a ten-acre holding has been established on the agricultural stations at Corozal and at Stann Creek in order that suitable persons may be trained, that cattle may be broken in and that detailed records of all operations may be kept. A demonstration holding has also been established in each of the following districts:

Belize, Cayo, Northern and Stann Creek.

SECTION III.

EXPENDITURE AND REVENUE.

EXPENDITURE.

1-11.	Personal Emoluments	$14,305.53	$ 14,305.53
	Other Charges.		
12.	Transport and Travelling	2,567.73	
13.	Scientific Equipment	30.28	
14.	Samples, Investigations & Exhibits	212.95	
16.	Incidentals	75.00	
17.	Nurseries and Plant Propagation	3,704.78	
18.	Bicycle Allowance	52.05	
19.	Inspection of Export Fruit	.40	
20.	Provision and Maintenance of Working Livestock	1,715.60	
21.	Implements, Upkeep and Repairs	524.23	
22.	Shows and Competitions	23.50	
23.	Apprentices (Training of Pupils)	—	
24.	Labour, etc., at Agricultural Stations	9,782.75	
25.	Loss on Working of Board of Agriculture	15,691.01	
26.	Control of Pests, Crown Land	8.02	34,388.30

Special Expenditure.

27.	Purchase of Lorry	766.15	
28.	Tractor and Implements (Transferred to Subhead 40)	—	
29.	Orange Walk Sub-Station	4,633.36	
30.	Labourers' Huts and Implements Shed Agstats	1,576.21	
31.	Deepening Well Corozal Agstat	397.55	
32.	Dorey and Outboard Engine, Toledo	99.72	
33.	Three Hand Rice Threshers	171.55	
34.	Demonstration Plots	4,032.19	
35.	Rockstone Pond Settlement	981.95	
36.	Development of Agric. Settlements between Belize & Maskalls	6,133.79	
37.	Building & Materials for Cotton Growing Experiments	96.73	
38.	Cassava Planting Pomona	1,163.04	
39.	Loans to Cassava Planters	6,396.85	
40.	Mixed Farming	1,945.17	
41.	Banana Leaf-Spot Control	6,971.18	
42.	Loans to Rice Growers	570.00	35,935.44

Hurricane Reconstruction Loan.

3.	Maintenance of Rice Station, Punta Gorda	499.64	
4.	Soil Survey	—	
5.	Stock Breeding	205.78	705.42

Head 29B. War Expenditure.

8.	Agricultural Planting Scheme	423.91	423.91
	Total Agricultural Department		$ 85,758.60

REVENUE.

	Sale of Produce and Plants, Agric. Stations	1,364.69	
	Hire of Agricultural Plant and Equipment	33.00	
	Advances: Board of Agriculture	7,733.80	
	Agricultural Station, Stann Creek	159.05	
	Wee-Wee Ant Control	323.76	
	Deposits: Rockstone Pond Settlement	40.38	
	Stock Breeding	75.00	
	Sigatoka Disease Control	1,199.05	10,928.73
	Total Agricultural Department		$ 10,928.73

J. F. WARD,

Agricultural Officer.

TABLE No. 9. METEOROLOGY, AGRICULTURAL STATION, PUNTA GORDA, 1939.

MONTH	RELATIVE HUMIDITY			TEMPERATURE		SOIL TEMPERATURE		RAINFALL	RAIN DAYS
	Mean	Highest	Lowest	Mean Max.	Mean Min.	9 a.m.	3 p.m.	Inches	No of Days
January ..	89	95	73	84.1	64.4	75.6	77.9	10.45	27
February ..	72	92	62	85.9	62.3	76.8	79.6	2.72	14
March	68	81	53	86.1	56.3	84.9	82.7	1.57	13
April	90	100	45	88.3	55.2	83.2	87.6	3.03	12
May	70	83	58	88.5	67.1	75.3	65.8	2.73	17
June	75	95	58	87.4	69.4	82.9	86.4	32.51	27
July	74	91	65	87.5	69.2	83.0	87.1	23.24	29
August	77	95	69	87.6	68.1	81.8	85.5	46.73	28
September ..	78	93	69	88.1	68.9	81.7	85.7	29.10	29
October	81	98	69	86.8	66.9	71.0	75.5	24.50	30
November ..	76	93	55	82.9	60.1	76.3	80.1	2.85	15
December ..	73	95	76	81.8	58.8	75.0	77.0	3.96	29
MEAN	77	—	—	86.3	63.9	79.0	80.9	—	—
TOTAL ..	—	—	—	—	—	—	—	183.39	270

TABLE No. 7. METEOROLOGY, AGRICULTURAL STATION, STANN CREEK, 1939.

MONTH	Relative Humidity			Rainfall		Air Temperature Shade		Soil Temperature 1 Foot	
	Mean	Highest	Lowest	Inches	Rain Days	Mean Daily Max.	Mean Daily Min.	Mean At 9:00 a.m.	Mean At 3:00 p.m.
January	82	99	56	11.64	26	82	67	77.8	77.8
February	75	99	57	3.52	11	84	67	78.0	78.6
March	73	88	52	1.63	14	84	67	79.2	79.6
April	67	82	50	1.14	13	86	69	81.0	81.8
May	70.5	87	50	4.34	11	89.8	71.9	83.9	84.7
June	78.5	99	66	10.84	21	87	73	83.2	83.5
July	77.3	97	64	7.03	24	87	72	84.1	84.3
August	78.8	96	65	7.89	22	88	73	84.1	84.6
September	80	98	64	15.10	23	87	73	83.4	83.7
October	79	99	65	12.38	23	87	71	82.8	83.0
November	74	95	50	1.37	11	81	65	78.1	78.3
December	82	99	54	4.14	20	8.14	67.5	77.2	77.5
MEANS	76.4	94.8	57.7	—	—	85.3	69.7	80.5	81.4
TOTALS	—	—	—	81.02	219	—	—	—	—

TABLE No. 8. METEOROLOGY, AGRICULTURAL STATION, COROZAL, 1939.

MONTH	BAROMETRIC PRESSURE			RELATIVE HUMIDITY			RAINFALL		SHADE TEMP.		SOIL TEMP.	
	Corr. M.S.L.	High M.S.L.	Low M.S.L.	Aver-age	High	Low	Inches.	Rain Days	Mean Max.	Mean Min.	9:00 a.m.	3:00 p.m.
January ..	30.06	30.22	29.92	79	98	53	2.12	12	83	65	78.7	79.0
February ..	30.01	30.28	29.82	68	97	45	0.84	9	85	67	78.9	79.1
March ..	30.02	30.20	29.82	64	82	48	1.11	3	85	68	80.3	80.5
April ..	30.00	30.14	29.82	66	98	52	0.79	5	87	71	83.4	83.8
May ..	29.95	30.08	29.88	75	97	45	5.15	8	88	74	85.5	86.1
June ..	30.01	30.10	29.84	79	96	62	7.52	11	88	75	85.9	86.1
July ..	30.04	30.12	29.92	75	99	56	3.13	12	88	73	88.0	88.3
August ..	30.00	30.12	29.90	69	96	54	3.27	9	89	72	87.8	87.9
September ..	29.97	30.08	29.82	75	95	52	7.56	17	87	72	88.2	87.2
October ..	29.98	30.08	29.90	74	95	50	1.47	10	87	71	86.0	86.0
November ..	30.11	30.32	29.96	71	95	65	3.23	4	81	63	79.1	80.1
December ..	30.10	30.24	29.94	70	95	45	0.83	3	82	63	77.5	77.7
TOTAL	360.25	361.98	358.54	865	1143	627	37.02	103	1030	834	998.3	1001.8
MEAN	30.02	30.17	29.88	72	95	52			85.8	69.5	83.2	83.5

TABLE No. 10. RAINFALL, 1939.

OBSERVATION STATION	January		February		March		April		May		June		July		August		September		October		November		December		Totals		Raindays Total	
	1939	1938	1939	1938	1939	1938	1939	1938	1939	1938	1939	1938	1939	1938	1939	1938	1939	1938	1939	1938	1939	1938	1939	1938	1939	1938	1939	1938
COROZAL DISTRICT	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	No.	No.
TOWN	1.94	3.13	.50	2.12	1.85	.04	.55	.69	4.33	5.87	7.86	7.97	2.72	1.76	2.06	6.16	7.61	8.57	1.69	13.75	3.81	2.66	.73	.25	35.65	52.37	56	87
Agricultural Station	2.12	1.37	.84	2.48	1.11	nil	.79	.51	5.15	8.21	7.52	4.19	3.13	1.87	3.27	7.79	7.56	12.74	1.49	6.83	3.23	3.81	.73	.26	36.94	50.06	103	123
Louisville	3.37	1.66	.53	2.89	.25	.29	.38	2.19	4.41	4.93	7.11	2.56	3.92	1.94	3.03	7.98	8.57	12.43	3.14	7.40	1.56	4.11	.76	.20	36.97	48.52	75	85
Pembroke Hall	2.20	.92	nil	3.10	.64	nil	.31	1.32	5.04	3.75	7.41	2.85	5.54	2.26	3.20	7.72	8.08	11.08	2.42	7.23	1.06	3.56	1.49	1.23	37.39	45.02	74	101
ORANGE WALK DISTRICT.																												
TOWN	2.14	1.00	.49	4.10	1.97	.18	.36	1.63	2.50	5.75	5.65	8.05	2.32	4.12	3.60	8.68	9.54	14.13	3.12	5.69	.81	6.80	.59	1.88	33.09	62.01	112	155
Freshwater Creek	2.94	2.93	1.87	5.96	.41	.08	.25	2.66	2.80	6.89	9.28	8.23	2.74	2.88	4.77	9.41	9.25	14.75	4.13	4.69	1.81	7.01	.55	2.49	40.60	67.98	109	148
BELIZE DISTRICT.																												
TOWN	4.31	8.89	3.71	4.38	1.49	.32	.63	1.49	2.18	5.48	4.65	9.85	5.87	3.98	5.95	10.77	10.76	12.13	6.68	12.08	1.27	8.52	7.24	3.31	54.14	81.20	187	207
Turneffe (1)	4.36	3.99	1.11	4.53	.81	nil	.30	.31	.45	2.18	2.16	4.64	2.87	2.00	6.33	8.99	11.32	8.14	9.55	19.31	7.11	8.49	—	6.61	46.37	69.19	90	130
CAYO DISTRICT.																												
TOWN	2.75	2.70	2.98	5.71	.31	nil	1.51	.61	2.65	.75	4.14	9.11	3.26	6.57	5.35	10.35	10.03	7.70	4.37	2.10	2.15	7.23	1.46	6.65	40.96	59.48	100	75
Mount Pleasant	5.51	—	2.41	—	.80	—	1.69	—	5.70	—	10.18	—	6.80	—	8.59	—	13.17	—	7.48	—	1.25	—	4.03	—	67.58	—	177	—
STANN CREEK DISTRICT.																												
Agricultural Station	11.64	4.04	3.52	4.36	1.63	.05	1.14	4.46	4.34	6.71	10.84	6.45	7.03	5.17	7.80	12.05	15.10	19.54	12.38	10.31	1.37	6.11	4.14	2.10	81.02	81.35	219	212
Industrial School	11.82	4.81	3.29	7.08	4.03	nil	1.49	3.73	2.20	6.96	12.69	7.30	10.28	5.55	11.28	12.78	16.25	21.19	9.85	8.81	1.40	6.21	3.35	8.22	87.93	92.73	142	186
TOLEDO DISTRICT.																												
TOWN	10.21	5.96	1.96	9.83	2.19	.67	2.48	9.16	5.19	12.97	25.64	24.66	25.35	28.91	42.82	26.28	22.64	33.75	24.04	17.48	2.80	8.32	3.03	8.12	168.35	186.11	164	172
Agricultural Station	10.45	7.07	2.72	10.89	1.57	1.43	3.03	4.32	2.73	12.24	32.51	24.96	23.24	35.43	46.73	25.07	29.10	32.15	24.50	12.71	2.85	6.50	3.66	6.84	183.39	179.81	270	285
Tropical Oil Products Co. ..	9.16	6.50	1.17	7.45	1.48	1.30	1.44	4.63	1.79	4.92	21.27	30.85	14.86	26.65	23.90	21.79	23.39	20.47	14.51	10.82	2.91	5.33	4.35	4.43	120.32	145.14	219	233

(1) Returns for 11 months only.